

# Notice of Allowability

Application No.

09/874,591

Examiner

Kelvin E Booker

Applicant(s)

KEELER ET AL.

Art Unit

2121

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to Amendment filed June 4, 2004.
2. ☒ The allowed claim(s) is/are renumbered claims 1-12.
3. ☒ The drawings filed on 05 June 2001 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All b) ☐ Some\* c) ☐ None of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

BEST AVAILABLE COPY

## DETAILED ACTION

### EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

The application has been amended as follows:

(1) On page 6, paragraph [0012], line 5, *-FIGURE 1-* has been amended to read -  
*FIGURE 1a-*;

(2) On page 6, paragraph [0013], line 8, *-FIGURE 1a illustrates a simplified block diagram of the system of FIGURE 1-* has been amended to read *-FIGURE 1b illustrates a simplified block diagram of the system of FIGURE 1a-*.

(3) On page 9, paragraph [0044], line 1, *-Referring now to FIGURE 1-* has been amended to read *-Referring now to FIGURE 1a-*;

(4) On page 10, paragraph [0049], line 26, *-In the embodiment of FIGURE 1-* has been amended to read - *In the embodiment of FIGURE 1a-*; and

(5) On page 11, paragraph [0051], line 13, *-Referring now to FIGURE 1a, there is illustrated a simplified block diagram of the system of FIGURE 1-* has been amended to read - *Referring now to FIGURE 1b, there is illustrated a simplified block diagram of the system of FIGURE 1a-*.

*Allowable Subject Matter*

2. **Renumbered claims 1-12** are allowed (e.g., **original claims 21-32**). **Original claims 1-20** have been canceled.

3. The following is an examiner's statement of reasons for allowance:

As per **original independent claims 21 and 27**, the cited prior art, either singly or in combination, fails to anticipate or render obvious a method for determining output values and defining relationships with regards to output values, whereby all of the predictive model inputs have a fixed and defined relationship respective of the model's output value.

Keeler et al., U.S. Patent Nos. 6,002,839, 5,613,041, 5,819,006, 5,842,189, 6,169, 980, 5,479,573, 6,243,696 and 5,353,207, teach of training predictive models and defining input relationships respective of a model's output, but fails to explicitly focus on a method whereby all of a model's inputs have fixed and defined relationships with the predictive output.

Si et al., "Control Relevant Long-Range Plant Identification Using Recurrent Neural Networks", and Draeger et al., Model Predictive Control Using Neural Networks", teach of using feedback and recurrent neural networks to model predictive control elements of a system, but fail to explicitly focus on the aforementioned method of providing all model inputs with fixed, defined relationships respective of the model outputs.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Art Unit: 2121

***Conclusion***

4. An inquiry concerning this communication or earlier communications from the examiner should be directed to Kelvin Booker whose telephone number is (703) 308-4088. The examiner can normally be reached on Monday-Friday from 7:00 AM-5:30 PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Anthony Knight, can be reached on (703) 308-3179. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

An inquiry of a general nature or relating to the status of this application proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

**K.E.B.**

**Art Unit 2121**

**August 20, 2004**

  
Anthony Knight  
Supervisory Patent Examiner  
Group 3600

BEST AVAILABLE COPY